

REMARKS

Receipt of the Office Action of August 19, 2008 is gratefully acknowledged/

Claims 44 - 52 and 56- 58 were presented for examination. As a result of the examination, claims 30 - 43 and 53 - 55 have been withdrawn from consideration as drawn to a non-elected invention, claims 44 - 46 are rejected under 35 USC 102(b) as anticipated by Machida, claim 48 is rejected under 35 USC 102(b) as anticipated by Schempp et al, claim 49 is rejected under 35 USC 102(b) as anticipated by Reimer et al, claims 50 and 52 are rejected under 35 USC 102((b) as anticipated by Belke Jr. Et al, claim 47 is rejected under 35 USC 103(a) over Machida in view of Gaku et al, claim 51 is rejected under 35 USC 103(a) over Kokubun et al in view of Machida, claims 56 and 57 are rejected under 35 USC 103(a) over Machida in view of Jones, Jr et al, and claim 58 is rejected under 35 USC 103(a) over Machida in view of Kalina.

Applicant has decided, in order to expedite prosecution, to leave claims 30 - 43 and 53 - 55 as withdrawn, and to cancel claims 44 - 49 and 56 - 58. This leaves for further consideration in this application, claims 50 - 52.

Claims 50 - 52 have been rejected, as noted above, as anticipated under 35 USC 102(b) by Belke, Jr. et al. This rejection is respectfully traversed.

Claim 50 relates to a connection hole for receiving a connection wire, or pin, of an electronic component and to restriction that represents a holding mechanism for the secure holding of the pin or wire in the hole. Such a holding mechanism is an essential feature of the claimed invention. In contrast, Belke Jr. et al teaches a hole or an aperture in a printed circuit board that serves to provide space for an enhanced "interconnection" of a solder bridge connecting the desired internal conductive layers of the printed circuit board (see column 1,

lines 40-55 of Belke, Jr. Et al). Belke J et al's aim is to optimize the wetting of the material forming the final interconnecting bridge (see column 5, lines 1-17 e.g.). In figures 2-13 of Belke, Jr et al, there are illustrated various embodiments of the internal geometry of apertures or holes that are intended to receive a bulb type of solder for providing the desired interconnections of internal layers. Belke, Jr. et al is silent in regard to any pin or wire placed in the holes or apertures. Furthermore Belke, Jr et al does not teach any holding mechanism for providing a secure holding for a pin or wire, because there is no pin or wire in the apertures according to Belke, Jr. et al.

In view of this clear teaching in Belke, Jr. et al , it is difficult to see a basis for the examiner's position expressed on page 5 of the Office Action that the "secure holding" is given only "little patentable weight". One can understand this position if the reference to a wire or pin in claim 50 is ignored.. However, It should not be ignored; and it appears rather conclusive from the Belke, Jr. et al teaching that Belke, Jr. et al has nothing to do with a wire or pin, so that the method of claim 50, which is aimed at manufacturing a circuit board "for receiving a connection wire, or pin.." cannot be anticipated by Belke, Jr. et al.

The same can be said for claims 51 and 52.

Then with respect to the rejection of claim 51 under 35 USC 103(a) over Kokubun et al in view of Machida, it is noted that Machida describes a particular "thin electric circuit layer" which corresponds to the foil of cancelled claims 44-47. Kokobun et al describe a method for forming a through hole electrically connecting two sides of a flexible multilayer circuit board (see section "Technical Field" of Kokobun et al). The through hole is formed by two external holes in external layers which holes are arranged to have a certain offset to each other and by an internal layer with a preformed hole, which internal layer is located between the two external layers. Kokobun et al describe in claim 1 and the

related specifications text (see column 3, lines 33-60) that the two external holes are drilled by a laser through external layers whereby the laser radiation is blocked by the internal layer. In order to allow for a real through hole through the circuit board the internal layer has a pre-made hole. If the internal layer blocks the laser it must have a pre-manufactured hole otherwise there would be no through hole through the circuit board. The pre-made hole in the internal layer defines the real through hole diameter which in turn is smaller than the holes in the two external layers (see Column 3, line 60 bridging to column 4, line 12 and claims 2-3 of Kokobun et al). This is totally different from the subject matter of pending claim 51. First, the circuit board according to Kokobun et al requires multiple layers. The circuit board according to pending claim 51 may even consist of a single layer. Secondly, Kokobun et al only describe "through holes" in the layers to form the final "stepped" through hole, whereby claim 51 claims blind holes to finally form the through hole. Thirdly, the final hole through the circuit board of Kokobun et al has nothing to do with holding or securing connection pins or wires of wired components, and is silent in regard to any pin or wire placed in the holes or apertures. Kokobun et al do not teach any holding mechanism for a secure holding of a pin or wire, because there is no pin or wire in the apertures described by Kokobun et al. The "secure holding" of pins or wires is important for the subject matter of claim 51 and should not to be neglected.

The examiner cites Machida in view of Kokobun et al in order to combine the secure holding effect of the foil according to Machida with the particular geometry of the through hole according to Kokobun et al. The examiner's arguing that "secure holding" of pins or wires is given only "little patentable weight" should, as noted above, be dismissed. Combining Machida and Kokobun et al does not lead to the subject matter of claim 51. Neither does Machida suggest combining the wire securing foil with a through hole according to Kokobun et al. And, moreover, Kokobun et al does not contemplate a securing device for a pin or wire. Combining a foil according to Machida with the circuit board of Kokobun et

al would enhance the number of layers of the resulting circuit board and bring it further away from the board according to pending claim 51. Thus, the subject matter of claim 51 can not be obvious to the skilled person even when Machida and Kokobun et al are combined..

In view of the foregoing, reconsideration and re-examination are respectfully requested and claims 50 - 52 found allowable.

Respectfully submitted,
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